

Prosenjit Das

Khulna University, Khulna-9208, Bangladesh

[Website](#) — [Email](#) — [Google Scholar](#) — [GitHub](#) — [LinkedIn](#)

Summary

I am a final-year undergraduate student in Electronics and Communication Engineering Discipline at Khulna University, Bangladesh. My research interests include Machine Learning, Medical Data Analysis, Metaheuristic, and Explainable AI (XAI). Furthermore, interested in Deep Learning and Vision Transformer.

Education

B.Sc. in Electronics and Communication Engineering 2023 – Present
Khulna University, Bangladesh
Average CGPA- 3.84/4

Publications

Journal Articles

1. *Dengue Fever Classification Integrating Bird Swarm Algorithm with Gradient Boosting Classifier Along with Feature Selection and SHAP-DiCE Based Interpretability.*
Prosenjit Das, Proshenjit Sarker, Jun-Jiat Tiang, Abdullah-Al Nahid.
Applied Sciences, Vol. 15, Article 11413, MDPI, 2025. [\[PDF\]](#)
2. *Aquaculture Water Quality Classification Using XGBoost Classifier Model Optimized by the Honey Badger Algorithm with SHAP and DiCE-Based Explanations.*
S. M. Naim, **Prosenjit Das**, Jun-Jiat Tiang, Abdullah-Al Nahid.
Water, Vol. 17, Article 2993, MDPI, 2025. [\[PDF\]](#)
3. *Breast Cancer Prediction Using Rotation Forest Algorithm Along with Finding the Influential Causes.*
Prosenjit Das, Proshenjit Sarker, Jun-Jiat Tiang, Abdullah-Al Nahid.
Bioengineering, Vol. 12, Article 1020, MDPI, 2025. [\[PDF\]](#)

Preprints

1. *Generative AI for Research: Paradigms, Tasks, Evaluation, and Best Practices.*
Antu Kumar Guha, **Prosenjit Das**, Amit Bala, Sabah Ummie, Muhammad Enayetur Rahaman, Md Nurul Absar Siddiky, Muhammad Rezaur Rahman.
Preprints, 2025. [\[PDF\]](#)
2. *A Comprehensive Survey of Prompt Engineering Techniques in Large Language Models.*
Tonmoy Debnath, Md Nurul Absar Siddiky, Muhammad Enayetur Rahman, **Prosenjit Das**, Antu Kumar Guha.
TechRxiv, 2025. [\[PDF\]](#)

Datasets

1. *KU-BD-Fish: High-Resolution White-Background and Segmented Images for Species Classification.*
Naim S. M., Md Ashikkur Rahman, **Prosenjit Das**, Abdullah-Al Nahid.
Mendeley Data, Version 3, 2025. [\[DOI\]](#)

Research Experience

Undergraduate Researcher 2024 – Present
Machine Learning, Medical Data Analysis, Metaheuristic, and XAI

- Disease classification using ML and XGBoost
- Explainability analysis using SHAP, DiCE, and LIME
- Metaheuristic optimization for feature selection & hyperparameter tuning

Technical Skills

- **Programming & AI/ML:** Python, C, C++, MATLAB, Machine Learning
- **Office & Productivity:** Microsoft Word, PowerPoint, Excel
- **Writing Tools:** LaTeX

Honors & Awards

- **1st Runners-Up — ML Blitz Competition**
Organized by IEEE KU Branch. Achieved a top position in our first participation, showcasing strong expertise in machine learning. Demonstrated effective teamwork, problem-solving, and model optimization throughout the competition.
- **University Merit Scholarship, Khulna University, 2025**
Received for achieving GPA: 3.88 / 4.00 (Top 3 in the Discipline)